



Drinking Water Quality Regulator
for Scotland

Incident Assessment

Windyfield WTW Treatment Failure 24 June 2012

DWQR Inspector:
William Byers

Summary of Incident

On 24 June 2012, the standby Team Leader was alerted to a problem at the Windyfield water treatment works near Rhynie, Aberdeenshire, through a report of low pressure from a property in the supply zone. On attendance at the works, it was discovered that the plant had shut down and the clear water storage tank was at a low level. Investigations showed that the works had shut down automatically due to the inability of the disinfection system to maintain the target levels of chlorine in the final water because of increased levels of colour in the raw water supply. There were no alarms transmitted from the works to alert staff to this situation. Operators at the site had been aware of a communications problem, which was causing the site to dial out in a sporadic nature, and they had raised a request for investigation and repairs to be carried out.

The works was restarted in manual mode and water was tankered in to the CWT from another supply area. A series of samples taken at the works and from properties in the supply zone showed there to be no impact on water quality.

DWQR Assessment of Cause of Incident

DWQR considers the cause of this incident to be the failure of the telemetry system to generate alarms from the site. The works provides a basic level of treatment and it is designed to close down during periods of significant change in raw water quality to protect consumers. In these situations, it is imperative that communications with the site are maintained to ensure any alarms can be responded to and the delay in carrying out works on such sites sensitive to changes in raw water quality is unacceptable.

DWQR Assessment of Actions Taken by Scottish Water

DWQR is satisfied the controls on the treatment process operated correctly in closing down the works and that Scottish Water responded appropriately to the loss of production and subsequent monitoring of the station and CWT. It is perhaps unfortunate that the change in raw water quality occurred before the replacement parts could be fitted to the telemetry. There was however, an element of delay in scheduling the repairs to accommodate training and this left the station at elevated risk, especially in a season where highly coloured water could be expected to arise. DWQR considers the contingency arrangements to have been inadequate to address the identified problems whilst telemetry reliability was impaired. The communications card was replaced and normal telemetry restored on 3 July 2012.

DWQR made one recommendation following this incident.

